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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,194

08/16/2005

Eric Prouzet

032013-110

8662

7590

09/24/2007

Burns Doane Swecker & Mathis
P O Box 1404
Alexandria, VA 22313-1404

EXAMINER

LE, HOA T

ART UNIT

PAPER NUMBER

1773

MAIL DATE

DELIVERY MODE

09/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/521,194	Applicant(s) PROUZET ET AL	
	Examiner H. T. Le	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>Jan. 2005</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it fails to comply with 37 CFR 1.72(b). The abstract must be written as a whole in a single paragraph.
Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4, 11-13 and 17-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, "the reaction medium" has no clear antecedent basis.

In claim 11, "gentle stirring" renders the claim indefinite. The term "gentle" is a relative term, but is not defined by the claim. The specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In claim 12, "The reaction medium" lacks clear antecedent basis.

Claim 13 is deemed indefinite in view of its dependency on claim 12.

Claim 17 suffers the same deficiency of claim 12.

Claims 18-22 are deemed indefinite in view of their dependency on claim 17.

In claim 23, "a few mm" renders the claim indefinite. The term "few" is a relative term, but is not defined by the claim. The specification does not provide a standard for

ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 24 is deemed indefinite in view of its dependency on claim 19.

Claim 25 is deemed indefinite in view of its dependency on claim 21.

Claim 26 is deemed indefinite in view of its dependency on claim 22.

Claim 27 contains an ambiguous Markush group. What is the difference or similarity between "organic coloring agents" and coloring agents"? Are they mutually exclusive? Or do "coloring agents" include "organic coloring agents"?

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for silicon-based inorganic matrix, does not reasonably provide enablement for other type of inorganic matrices. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. The specification exemplifies only silica-based inorganic matrix. Besides silicon, there is totally devoid of guidance as to whether any non-silicon based inorganic matrix is suitable for the sol-gel process required in crosslinking of the inorganic matrix. Therefore, claims 1-27, which fail to describe that the inorganic matrix comprises silicon, are deemed broader than the enabling scope of the disclosure.

Claim Rejections - 35 USC § 102/103

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Dziedzic (US 4,063,856).

Dziedzic teaches a method of forming beads (spherical particulates) comprising forming a suspension of an inorganic matrix precursor and an alginate in a polyvalent cation salt, gelling the suspension, and forming the bead by a sol-gel process. See col. 2, lines 36-68; col. 3, lines 49-54. In the alternative, no report as to the pH of the suspension; however, it appears that the pH does not alter the outcome of the product. Claims 23-27 are directed to a product; therefore, the pH of the suspension is immaterial to the resulting products. The burden is on the Applicant to show that the pH of the suspension results in a materially different product than the beads taught by Dziedzic.

9. Claims 1-27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gerk (US 4,574,003).

Gerk teaches a method of forming beads comprising forming a suspension of an inorganic matrix precursor and an alginate in a polyvalent cation salt, gelling the suspension, and forming the bead by a sol-gel process. See col. 2, lines 2-16, 35-42, and 58-68. The pH is kept low by adding nitric acid to the suspension (col. 6, lines 58-66). In the alternative, it appears that the pH does not alter the outcome of the product. Claims 23-27 are directed to a product; therefore, the pH of the suspension is immaterial to the resulting products. The burden is on the Applicant to show that the pH of the suspension results in a materially different product than the beads taught by Gerk.

10. Claims 1-27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Motai et al (US 4,797,358).

Motai teaches a method of forming beads comprising forming a suspension of an inorganic matrix precursor and an alginate in a polyvalent cation salt, gelling the suspension, and forming the bead by a sol-gel process. The pH is kept at 3. See col. 2, lines 11-18. In the alternative, although the lower limit of the pH is 3, it appears that the pH does not alter the outcome of the product. Claims 23-27 are directed to a product; therefore, the pH of the suspension is immaterial to the resulting products. The burden is on the Applicant to show that the pH of the suspension results in a materially different product than the beads taught by Motai.

11. Other references are cited as art of interest.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511.

The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. Thi Le/
H. (Holly) T. Le
Primary Examiner
Art Unit 1773

September 15, 2007